

Amendments to the Claims:

Please cancel claims 1-20 as presented in the underlying International Application No. PCT/EP2005/000122.

Please add new claims 21-44 as indicated in the listing of claims below.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-20 (canceled)

Claim 21 (new): A method for controlling a cooking process on a cooktop including: a cooktop plate having, in a direction perpendicular to the main directions of extension of the upper and lower surfaces, a material thickness defined by a flat upper surface and a flat lower surface; at least one cooking zone heatable by a heating device disposed beneath the cooktop plate when the cooktop is in an installed position; and a first and a second heat sensor unit disposed beneath the cooktop plate; the method comprising:


measuring, by the first heat sensor unit, a first heat flow emanating downward substantially from the cooktop plate in an area of a first cooking zone of the at least one cooking zone;

measuring, by the second heat sensor unit, a second heat flow emanating downward, in the area of the first cooking zone, downward substantially from the cooktop plate and a cooking utensil disposed thereon;

calculating, by an electrical control system, a comparison value from respective output signals of the first and second heat sensor units;

comparing, by the electrical control system, the calculated comparison value with at least one predetermined and stored reference value; and

controlling, by the electrical control system, a heat output of the heating device as a function of the comparing.

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Claim 40 (new): The cooktop as recited in claim 25 wherein a second measuring range of the second heat sensor unit is limited to measurement of thermal radiation in a second wavelength range, and further comprising a third heat sensor unit having a third measuring range limited to thermal radiation in a third wavelength range, the third wavelength range being different from the second wavelength range, wherein, in the area of the first cooking zone, at least in a third sensing region of the third heat sensor unit, the cooktop plate has a transmittance greater than 30 % for thermal radiation of the third wavelength range.

Claim 41 (new): The cooktop as recited in claim 25 further comprising a coating disposed on the upper surface of the cooktop plate in a sensing region of the first heat sensor unit, the coating having a transmittance of approximately 0 %.

Claim 42 (new): The cooktop as recited in claim 41 wherein the coating has a reflectance of about 100 %.

Claim 43 (new): The cooktop as recited in claim 41 wherein the coating has an absorptance of about 100 %.

Claim 44 (new): A system comprising: a cooktop and a cooking utensil disposed thereon, the cooktop including:

- a cooktop plate having, in a direction perpendicular to the main directions of extension of the upper and lower surfaces, a material thickness defined by a flat upper surface and a flat lower surface;

- at least one cooking zone heatable by a heating device disposed beneath the cooktop plate when the cooktop is in an installed position;

- a first heat sensor unit disposed beneath the cooktop plate and configured to measure a first heat flow emanating downward substantially from the cooktop plate in an area of a first cooking zone of the at least one cooking zone;

a second heat sensor unit disposed beneath the cooktop plate and configured to measure a heat flow emanating downward substantially from the cooktop plate and the cooking utensil, the cooking utensil being disposed in the area of the first cooking zone;

an electrical control system including a processing unit and a memory, the processing unit being configured to generate a comparison value from respective output signals of the first and second heat sensor units, the electrical control system being configured to control a heat output of the heating device as a function of a comparison of the comparison value with at least one predetermined reference value stored in the memory; and

a coating disposed on a bottom of the cooking utensil, at least in an area that overlaps a sensing region of the second heat sensor unit, the coating having a predetermined emissivity;

wherein the memory of the electrical control system is configured to store the predetermined emissivity.